

## **REMARKS**

In response to the above-identified Office Action, Applicants amend the application and seek reconsideration thereof. In this response, Applicants amend Claim 1. Applicants do not add any new claims or cancel any claims. Accordingly, Claims 1-4 are pending.

### **I. Claims Rejected Under 35 U.S.C. § 112**

Claims 1-4 stand rejected under 35 U.S.C. § 112, second paragraph as being indefinite. Applicants have amended Claim 1 to more clearly point out the locations of the absorbing layer and where the intrinsic region is formed. Thus, the heterojunction structure is formed in the defined intrinsic region. Accordingly, reconsideration and withdrawal of the rejection are respectively requested.

### **II. Claims Rejected Under 35 U.S.C. § 102**

Claims 1-4 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Publication No. 2004/0126057 applied for by Yoo (“Yoo”). Applicants respectfully traverse the rejection.

To anticipate a claim, the Examiner must show that a single reference teaches each of the elements of that claim. Among other elements, Claim 1 recites “said p-type doped region extends into said absorbing layer by a predetermined length and the intrinsic region is defined by an area between the n-type doped region and the p-type doped region.” Applicants submit that Yoo at least does not teach these elements.

The Examiner relies on Yoo for disclosing an n-type cladding layer, a p-type upper cladding layer, an absorbing layer, and control electrodes. Assuming for the sake of argument that these disclosed elements are the claimed element, the Examiner has not satisfied the burden of showing that Yoo teaches each of the elements of Claim 1. The Examiner has not shown that Yoo teaches the p-type doped region extending into the absorbing layer by a predetermined length. Nor has the Examiner shown that Yoo discloses the intrinsic region. Applicants have carefully reviewed the

disclosure of Yoo but have been unable to locate any reference to these claimed elements. Thus, Yoo does not teach each of the elements of Claim 1. Accordingly, reconsideration and withdrawal of the anticipation rejection of Claim 1 are respectfully requested.

In regard to Claims 2-4, these claims depend from Claim 1 and incorporate the limitations thereof. Thus, at least for the reasons mentioned above in regard to Claim 1, Yoo does not anticipate these claims. Accordingly, reconsideration and withdrawal of the anticipation rejection of Claims 2-4 are respectfully requested.

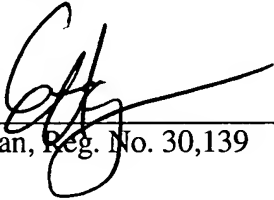
## CONCLUSION

In view of the foregoing, it is believed that all claims now are now in condition for allowance and such action is earnestly solicited at the earliest possible date. If there are any additional fees due in connection with the filing of this response, please charge those fees to our Deposit Account No. 02-2666. If the Examiner believes that a telephone conference would be useful in moving the application forward to allowance, the Examiner is encouraged to contact the undersigned at (310) 207 3800.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

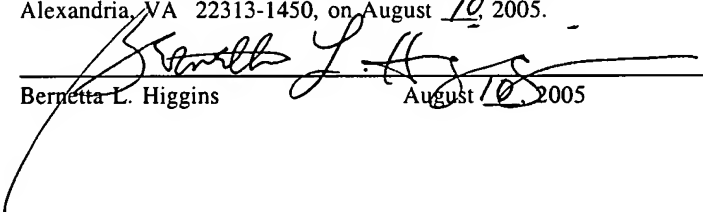
Dated: 8/10, 2005

  
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### CERTIFICATE OF MAILING:

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on August 10, 2005.

  
Bernetta L. Higgins

August 10, 2005